

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S10	5	threadlike near4 structure same imag\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 15:07
S11	4	((extract\$4 or obtain\$4 or pull\$3 or gather\$3) near3 (point\$3 or featur\$3)) same ((threadlike or thread\$like) near struct\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 15:45
S14	1	(((((threadlike or thread\$like) near struct\$4))) same (parent\$3 or child\$5 or ancest\$3 or father\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 15:15
S11 4	8	threadlike near4 structure same imag\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 15:10
S11 5	18	(threadlike thread\$like) near4 structure same imag\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 15:16
S11 6	363866	(mimimal least best short) same (path node\$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 15:13
S11 7	22229	S116 same image	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 15:13
S11 8	115260	(mimimal best short) same (path)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 15:15
S11 9	5761	S118 same image	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 15:15

S12 0	1	S119 same (father\$2 children\$2)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 15:14
S12 1	13	S119 same (parent\$3 or child\$5 or ancest\$3 or father\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 15:15
S12 2	38309	(mimimal best short) near6 (path)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 15:15
S12 3	1516	S122 same image	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 15:15
S12 4	3	S123 same (parent\$3 or child\$5 or ancest\$3 or father\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 15:15
S12 5	5	S123 same ((extract\$4 or obtain\$4 or pull\$3 or gather\$3) near3 (point\$3 or featur\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 15:46
S12 6	248	S123 same (point\$3 featur\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 16:45
S12 7	15	S126 same (predetermin\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 16:38
S12 8	7	S126 same (vessel\$3 \$3medical\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 16:45
S12 9	1608	600/407.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 16:15

S13 0	422	128/920.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 16:15
S13 1	2	600/407.ccls. and S126	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 16:45
S13 2	1	128/920.ccls. and S126	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 16:45
S13 3	0	("2001/0055413").URPN.	USPAT	OR	ON	2005/01/06 16:18
S13 4	5	382/128.ccls. and S126	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 16:46
S13 5	7	S126 same (grid\$2 mesh\$2)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 16:38
S13 6	12	("4866629").URPN.	USPAT	OR	ON	2005/01/06 16:40
S13 7	5	("4596037" "4680627" "4720870" "4754329" "4757550").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/01/06 16:44
S13 8	266	S123 same (point\$3 featur\$3 node\$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 16:46
S13 9	7	S138 same (vessel\$3 \$3medical\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 16:45
S14 0	2	600/407.ccls. and S138	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 16:45

S14 1	1	128/920.ccls. and S138	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 16:45
S14 2	5	382/128.ccls. and S138	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/01/06 16:46
S14 3	26	("5432712").URPN.	USPAT	OR	ON	2005/01/10 15:32

Global Minimum for Active Contour Models: A Minimal Path Approach (1997) ([Make Corrections](#)) ([31 citations](#))

Laurent Cohen, Ron Kimmel

View or download:

ceremade.dauphine.fr/~cohe...TR96.ps.gz

Cached: [PS.gz](#) [PS](#) [PDF](#) [Image](#) [Update](#) [Help](#)

CiteSeer

[Home/Search](#) [Bookmark](#) [Context](#) [Related](#)

[DBLP Metadata](#)

From: ceremade.dauphine.fr/...recentpub
([more](#))

([Enter author homepages](#))

Initialize snakes into a global minimum by using a very optimised algorithm

Rate this article: 1 2 3 4 5 (best)

[Comment on this article](#)

Abstract: A new boundary detection approach for shape modeling is presented. It detects the global minimum of an active contour model's energy between two points. Initialization is made easier and the curve cannot be trapped at a local minimum by spurious edges. We modify the "snake" energy by including the internal regularization term in the external potential term. Our method is based on the interpretation of the snake as a path of minimal length in a Riemannian metric, or as a path of minimal cost. We ... ([Update](#))

Cited by: [More](#)

Fast Voronoi Diagrams and Offsets - On Triangulated Surfaces ([Correct](#))

Geodesic Remeshing Using Front Propagation - Gabriel Peyr Laurent ([Correct](#))

An Optimal Time Algorithm for Shape from Shading - Kimmel And Sethian (2000) ([Correct](#))

Similar documents (at the sentence level): [More](#)

59.0%: Global Minimum for Active Contour Models: A Minimal Path Approach - Cohen, Kimmel (1997) ([Correct](#))

14.8%: Edge Integration Using Minimal Geodesics - Cohen, Kimmel (1995) ([Correct](#))

13.9%: .4 Chapter Summary - Geodesic Formulation ([Correct](#))

Active bibliography (related documents): [More](#) [All](#)

0.5: Geodesic Active Contours - Caselles, Kimmel, Sapiro (1995) ([Correct](#))

0.4: Affine Invariant Edge Maps and Active Contours - Olver, Sapiro, Tannenbaum (1995) ([Correct](#))

0.4: Affine Invariant Detection: Edge Maps, Anisotropic.. - Olver, Sapiro.. ([Correct](#))

Similar documents based on text: [More](#) [All](#)

0.5: Expert Constrained Clustering: a Symbolic Approach - Rossi, Vautrain (2000) ([Correct](#))

0.4: Minimal Paths in 3D Images and Application to Virtual Endoscopy - Deschamps, Cohen ([Correct](#))

0.3: The Multiconfiguration Methods in Quantum Chemistry - Ceremade ([Correct](#))

Related documents from co-citation: [More](#) [All](#)

18: Snakes: active contour models (context) - Kass, Witkin et al. - 1987

18: Geodesic active contours - Caselles, Kimmel et al. - 1995

12: Level Set Methods: Evolving Interfaces in Geometry (context) - Sethian - 1996

BibTeX entry: ([Update](#))

Cohen, L.D., and Kimmel, R., 1997. Global Minimum for Active Contour Models : A Minimal Path Approach. International Journal of Computer Vision. <http://citeseer.ist.psu.edu/article/cohen97global.html> [More](#)

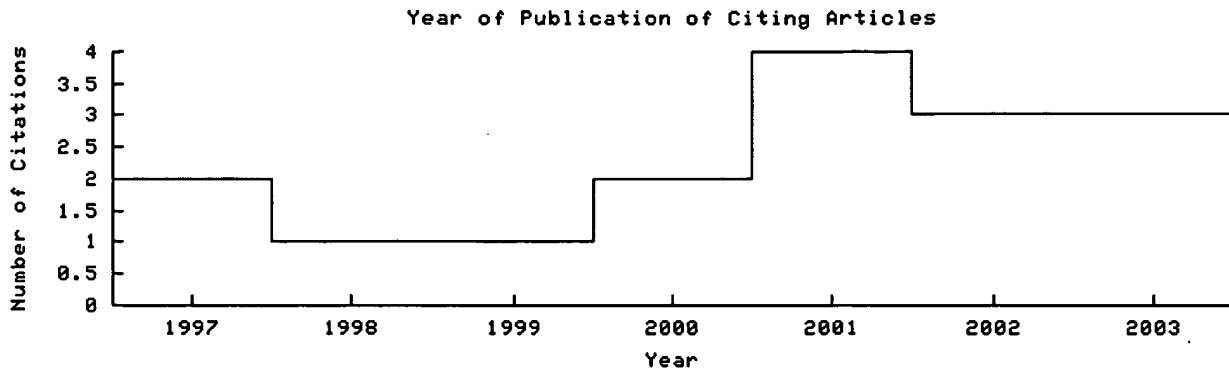
```
@misc{ cohen97global,  
  author = "L. Cohen and R. Kimmel",  
  title = "Global Minimum for Active Contour Models : A Minimal Path Approach",  
  text = "Cohen, L.D., and Kimmel, R., 1997. Global Minimum for Active Contour Model  
    : A Minimal Path Approach. International Journal of Computer Vision.",  
  year = "1997",  
  url = "citeseer.ist.psu.edu/article/cohen97global.html" }
```

Citations (may not include all citations):

1267 Snakes: Active contour models (context) - Kass, Witkin et al. - 1988

895 A computational approach to edge detection - Canny - 1986

- 278 Geodesic active contours - Caselles, Kimmel et al. - 1995
- 196 Shape modeling with front propagation: A level set approach - Malladi, Sethian et al. - 1995
- 184 User's guide to viscosity solutions of second order partial .. (context) - Crandall, Ishii et al. - 1992
- 168 Finite element methods for active contour models and balloon.. - Cohen, Cohen - 1993
- 133 Using dynamic programming for solving variational problems i.. (context) - Amini, Weymouth et al. - 1990
- 123 A level set approach for computing solutions to incompressib.. (context) - Sussman, Smereka et al. - 1994
- 112 A fast level set method for propagating interfaces - Adalsteinsson, Sethian - 1995
- 98 Distance transformations in arbitrary dimensions (context) - Borgefors - 1984
- 87 Surface modeling with oriented particle systems - Szeliski, Tonnesen - 1992
- 83 A viscosity solutions approach to shape-from-shading (context) - Rouy, Tourin - 1992
- 81 Fronts propagation with curvature dependent speed: Algorithm.. (context) - Osher, Sethian - 1988
- 74 A fast marching level set method for monotonically advancing.. - Sethian - 1996
- 72 Gradient flows and geometric active contour models - Kichenassamy, Kumar et al. - 1995
- 59 A geometric model for active contours (context) - Caselles, Catt'e et al. - 1993
- 49 Detection of roads and linear structures in low-resolution a.. (context) - Fischler, Tenenbaum et al. - 1981
- 48 Structural saliency: The detection of globally salient struc.. - Shaashua, Ullman - 1988
- 47 An active testing model for tracking roads in satellite imag.. - Geman, Jedynak - 1993
- 40 A review of recent numerical algorithms for hypersurfaces mo.. (context) - Sethian - 1989
- 37 Evolutionary fronts for topology-independent shape modeling .. (context) - Malladi, Sethian et al. - 1994
- 34 Finding shortest paths on surfaces using level sets propagat.. (context) - Kimmel, Amir et al. - 1995
- 31 the optimal detection of curves in noisy pictures (context) - Montanari - 1971
- 31 Euclidean distance mapping (context) - Danielsson - 1980
- 27 Algorithms for implicit deformable models - Whitaker - 1995
- 27 and Image Processing: Image Understanding (context) - Cohen, contour et al. - 1991
- 25 Modern Geometry - Methods and Applications (context) - Dubrovin, Fomenko et al. - 1984
- 24 Image segmentation by reaction-diffusion bubbles - Tek, Kimia - 1995
- 20 An optimal control formulation and related numerical methods.. (context) - Dupuis, Oliensis - 1994
- 20 Machine Vision and Applications (context) - Fua, Leclerc et al. - 1990
- 19 Vector-valued active contours (context) - Sapiro - 1996
- 19 Auxiliary variables and two-step iterative algorithms in com.. - Cohen - 1996
- 17 Medical image segmentation using topologically adaptable sna.. - McInerney, Terzopoulos - 1995
- 17 Minimal surfaces: a three dimensional segmentation approach - Caselles, Kimmel et al. - 1995
- 16 Estimating shortest paths and minimal distances on digitized.. (context) - Kiryati, Sz'ekely - 1993
- 14 Recovery of shapes by evolution of zero-crossings (context) - Shah - 1995
- 14 On matching deformable models to images: Direct and iterativ.. (context) - Terzopoulos - 1987
- 13 Fast marching method for computing solutions to static Hamil.. (context) - Adalsteinsson, Kimmel et al. - 1996
- 11 Distance maps and weighted distance transforms (context) - Kimmel, Kiryati et al. - 1996
- 11 Adaptive active contour algorithms for extracting and mappin.. (context) - Davatzikos, Prince - 1993
- 10 A curvature dependent energy function for detecting lines in.. - Merlet, Zerubia - 1993
- 9 Planning and reasoning for autonomous vehicle control (context) - Mitchell, Payton et al. - 1987
- 8 and Image Processing (context) - Bruckstein, from et al. - 1988
- 7 Dynamic segmentation: Detecting complex topology 3D-object (context) - Leitner, Cinquin - 1991
- 7 Curvature and continuity control in particlebased surface mo.. (context) - Szeliski, Tonnessen et al. - 1993
- 6 Making snakes converge from minimal initialization - Neuenschwander, Fua et al. - 1994
- 6 Chamfer masks: discrete distance functions (context) - Thiel, Montanvert - 1992
- 6 the eikonal equation solved by gray-weighted distance transf.. (context) - Verbeek, Verwer et al. - 1990
- 5 Finding shortest paths on surfaces by fast global approximat.. - Kimmel, Kiryati - 1994
- 5 Data structures for operations on digital images (context) - Rutovitz - 1968
- 4 A unified framework for shape segmentation representation (context) - Malladi, Sethian - 1994
- 4 New prospects in line detection for remote sensing images - Merlet, Zerubia - 1994
- 3 Fast marching methods for computing distance maps and shorte.. (context) - Kimmel, Sethian - 1996
- 3 Global minima via dynamic programming: Energy minimizing act.. (context) - Chandran, Meajima et al. - 1991
- 1 Motion tracking of deformable objects based on energy minimi.. (context) - Fujimura, Yokoya et al. - 1992



The graph only includes citing articles where the year of publication is known.

Documents on the same site (<http://www.ceremade.dauphine.fr/~cohen/recentpub.html>): [More](#)

Tracking medical 3D data with a parametric deformable model - Bardinet, Cohen, Ayache (1995) ([Correct](#))

Cardiac Wall Tracking Using Doppler Tissue Imaging (DTI). - Cohen, PAJANY, PELLERIN.. (1996) ([Correct](#))

Snakes: Sur La Convexit  De La Fonctionnelle.. - Cohen, GORRE ([Correct](#))

[Online articles have much greater impact](#) [More about CiteSeer.IST](#) [Add search form to your site](#) [Submit documents](#) [Feedback](#)

CiteSeer.IST - Copyright [Penn State](#) and [NEC](#)